LIST OF FIGURES

1.1	The illustration of extended communication between MCRBS be-	
	tween UAV linked to the victims due to the obstacles	1
2.1	Fundamental structure of channel coding	7
2.2	Channel polarization Polar codes	9
2.3	Fundamental Polar codes encoder with $N = 2$ in (2.10)	10
2.4	Fundamental encoder Polar codes for $N = 4$	11
2.5	Fundamental decoding block Polar codes	12
2.6	List decoding for Polar codes $N = 8$ with $L = 4$	13
2.7	A process of puncturing of 8-bit block with a puncturing pattern	
	P=[00111111] resulting a 6-bit block	15
2.8	A process of puncturing of 6-bit block with a depuncturing into a	
	8-bit block	15
2.9	multikernel construction Polar codes with $N=6$ and $G_6=T_2\otimes T_3$.	16
2.10	Fundamental T_3 block of multikernel	16
2.11	Performance of bit-error-rate theory of AWGN and Rayleigh fading	
	channels	20
3.1	Transmitter and receiver structure with Polar codes for communica-	
	tions between MCRBS and UAV	21
3.2	The illustration of extended communication between MCRBS and	
	UAV	22
3.3	Measure of polarization performance for different G_3	28
3.4	Kernel matrix of hybrid multikernel G_{3S} and G_{3L}	29
3.5	Hybrid multikernel-constructed Polar codes with $N=6$ and $G_6=$	
	$T_2\otimes T_3$	29
3.6	Flowchart of the proposed process coding technique of Polar codes.	32
4.1	The performances of hybrid multikernel with the proposed decod-	
	ing under AWGN channel	36
4.2	The performances of length 54 and 64 bits under AWGN channel	
	with Rate 0.3	37

4.3	Hybrid multikernel with the proposed decoding and the single ker-	
	nel Polar codes with block fading length of 54 under block Rayleigh	
	fading channel	38
4.4	Hybrid multikernel with List decoding under AWGN channel	39
4.5	Hybrid multikernel with List 8 and CRC-4 under AWGN channel	40
4.6	Hybrid multikernel and the single kernel Polar codes rate 0.33 with	
	List 8 and CRC under AWGN channel	41
4.7	The List size of 8 for blocklength 54 and 18 for hybrid multikernel	
	with the proposed decoding and the single kernel with block fading	
	length of 54 under block Rayleigh fading channel	42